Region 1 FY 2014 Invasive Species Control Program Proposal

Refuge/complex name: Mid-Columbia River NWR Complex

Project title: Control and Eradication of Saltcedar

Total amount requested: $31,000

Project description:

Target Invasive Species: Saltcedar (*Tamarix* spp.; a Class "B" noxious weed in WA, "B" designated weed in OR)
Infested Acres: ~10 acres (eradication subset) within ~32,000 acres
~635 acres (control subset) within ~25,000 acres
Treatment Acres: ~10 acres (eradication subset)
~35 acres (control subset)

Saltcedar is a non-native shrubby tree that can significantly degrade native habitats and/or prevent native vegetation from establishing or recolonizing following a disturbance. It has little to no forage value, can significantly alter hydrology and soil pH, and often forms near monocultures with little to no native understory. On McNary NWR, saltcedar occurs as isolated and small clusters of trees through the lower end of the McNary Sloughs, and in discrete patches on Peninsula and Two Rivers management units, covering about 1 acre in total. On the Saddle Mountain NWR and the Saddle Mountain management unit of Hanford Reach National Monument (Monument), saltcedar occurs as patches and clusters of mid-sized trees through irrigation seepage areas and around Saddle Mountain Lakes and Ponds, in all covering about 6 acres. On the Ringold management unit of the Monument, saltcedar occurs as individual trees and small clusters in moisture-holding areas along the White Bluffs, in all covering about 5 acres (not all of which is safely accessible). On the Wahluke management unit, saltcedar covers over 630 acres, primarily in a set of old irrigation settlement ponds, in moisture-holding areas of slumping areas along the White Bluffs, and as scattered individuals and small clusters around the WB10 Ponds. On Columbia NWR, saltcedar occurs as individual trees and small clusters in discrete areas within the Marsh Units, in all covering about 3 acres.

The proposed project is to: 1) remove all saltcedar from McNary, Columbia and Saddle Mountain Refuges, and from the Saddle Mountain unit of the Monument; and 2) control saltcedar on the Ringold and Wahluke units, removing the outlying plants and "pushing" the infestation back into controllable areas (i.e., into the main infestation body on Wahluke, and into the inaccessible seepage areas on the White Bluffs on Ringold, where slumping of the Bluffs is likely to provide long-term control). Removed plants will be treated through cut stump and a 50% solution of triclopyr (plus adjuvants).

Comment [BF1]: The focus is on salt-cedar, but all over the map. I might prefer them to carve out a smaller niche that can be more succinctly dealt with in a single year.

Distinct project with well-defined objectives (10 points):
Invasive species control needs within the Complex are already beyond what the base budget can cover. Systematic inspection and targeted treatment of isolated occurrences or to constrain established infestations will not be possible without abandoning other target areas, due to chemical and salary costs, unless additional funding can be found. The Complex has received a NFWF grant to partially fund a seasonal Invasives Strike Team through 2015, tasked to target infestations that otherwise would go untreated. The Strike Team began the process of controlling and eradicating saltcedar in 2013 but was funding-limited. Invasives mapping performed in 2013 under an Invasives with Volunteers grant also began the process of mapping the Monument infestations, immediately ahead of the Strike Team. The proposed project would help to offset grant and base funding costs in the 2014 season, freeing NFWF

funding to increase our species target window in 2015 for species and infestations that will otherwise go untreated.

Potential for maximum control/Likelihood of success (10 points):
Past experiences with saltcedar treatment have shown that the proposed methods are highly effective at killing saltcedar when specific application protocols are followed. We've seen >95% kill rates in stands of saltcedar, and nearly 100% control on individual trees. Given the geography and ecological characteristics of the infestation areas, eradication from McNary, Columbia and Saddle Mountain Refuges is likely, as is containment on the Ringold and Wahluke units.

Biological benefit to priority species or BIDEH (10 points):
Left unchecked, saltcedar can form near monoculture stands with little to no native understory. Saltcedar has little to no forage value and limited cover value for most refuge wildlife. Saltcedar has no value for waterfowl, for which McNary NWR was established to provide nesting, resting, and forage opportunities. One of the primary purposes of the Monument as stated in Presidential Proclamation 7319 ("Establishment of the Hanford Reach National Monument") and in the Final Comprehensive Conservation Plan is to protect and restore shrub-steppe ecosystems. Saltcedar represents a threat to this purpose.

Sustainability (10 points):
All activities to be funded under this proposal should be completed within the fiscal year. The Complex's NFWF grant will allow for one more year of follow-up monitoring and response treatments.

Comment [BF2]: No doubt with Mid-Co asking for more funds to do the work!

Monitoring to document and evaluate project success (10 points):
Monitoring will be accomplished through direct observation of treated infestations. Infestations will be GPS'ed using hand-held Trimble® units and a customized data dictionary in TerraSync®. These GPS files will be imported into the Complex's GIS for long-term documentation and monitoring. Treated sites will be revisited in subsequent years and retreatments will be made as needed. Additionally, long-term photo monitoring points coupled with vegetation monitoring transects were established in the infestation areas on the Wahluke unit in 2006. These will be revisited in subsequent years to document area changes over time.

Budget: $31,000 (*$12,750 eradication area subset + $18,250 for control area subset***)**
Personnel: $20,000 (*$8,800 + $11,200*)
Travel: $3,600 (*$1,600 + $2,000*)
Materials/Equipment: $7,400 (*$2,350 + $5,050*)

The Complex will be forming an Invasives Strike Team for 2014 to target other projects on the Complex. The requested personnel and materials funds will allow for the targeting of this strike team toward a greater proportion of existing saltcedar infestations than would be otherwise possible. The travel expenses will cover fuel and vehicle costs to travel to the infested refuges and sites. The strike team is to be based out of the Burbank office. The Saddle Mountain Refuge infestation is approx. 120 miles round-trip from Burbank, the Wahluke infestation is approx. 100 miles round-trip from Burbank, the Ringold infestation is approx. 80 miles round-trip from Burbank, the Columbia infestations are up to 200 miles round-trip from Burbank, and the McNary infestation sites are approx. 40 miles round-trip from the Burbank office.

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